

CLAIMS

1. Method for voltage stabilization of an electrical power network system comprising a producing power network system side and a consuming power network side by dynamically controlled transformer ratio n .

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2. Method according to claim 1, wherein an on-line tap changer added to the transformer is dynamically controlled by changing a voltage reference.

3. Method according to claim 2, wherein a feed forward compensation is provided by a first order filter $H_{ff}(s) = sT_d/(sT + 1)$, wherein T and T_d are tuning parameters.

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4. Method according to claim 2, wherein a feedback controller is provided according to the equation $V_{fb} = -\max(0, \alpha (n^2 Y_{LD} - 1/Z_{LN}))$, wherein n , Y_{LD} and Z_{LN} have the meanings given above and α is a tuning parameter that is influencing the region of attraction of the equilibrium point.

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